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05/31/2002

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Subject: Comments on docket number USCG-2001-10486 – 10

Thank you for the opportunity to comment on your advance notice of proposed rule making for ballast discharges. The following comments are organized by section as requested.

Q1. I prefer goal G1. This goal targets the complete inactivation or removal of zooplankton and phytoplankton, and sets a reasonable level for bacteria concentrations. Ballast discharges may not need to achieve drinking water standards to prevent invasive species introductions. The effectiveness of ballast exchange is highly variable, and difficult to quantify. Ballast treatment processes designed to kill or remove living organisms are so different from the ballast exchange process (which trades coastal organisms for mid-ocean organisms) that the two should be evaluated separately. I see no value in establishing an arbitrary estimate of exchange efficiency to measure treatment success.

Q2. I would suggest a different approach to an interim standard than any of those proposed. A standard is just a consistent way of determining which treatment technologies will be approved for use. The purpose of an interim standard is to allow for promising treatment technologies to be evaluated on-board vessels or in less than perfect laboratory conditions (i.e. not completely standardized). The establishment of an interim standard should encourage the installation of ballast treatment systems by an increasing number of vessel operators. Treatment technologies will become more effective, and their price will drop as their commercial application increases. It's simply a start that allows promising treatment systems to evolve, and allows scientists the ability to gather new information that will improve our ability to establish a more perfect standard in the future.

The interim standard should allow for the use of source waters that have variable concentrations of organisms and variable physical properties. The general idea expressed in S1 to test treatment systems in high concentrations of organisms is good, but should be kept somewhat flexible for the interim standard, and made more rigorous in future standards. Much knowledge can be gained from allowing tests to be conducted under a variety of conditions. The knowledge gained from the interim standard testing should improve our ability to define more rigorous protocols, and determine the ideal laboratory systems needed for future standards that can better weed-out technologies that are incapable of preventing new introductions, in an environmentally sound and

operationally practical way. I propose that we start with an interim standard based upon a percent reduction in organisms that is practical to measure in a wide variety of situations, while we work towards the establishment of a more perfect standard that is based upon the absolute concentration of organisms in ballast discharges.

I believe the interim standard proposed in S1 best meets our current needs with the following changes. Bacteria should be included in the standard, perhaps to the level suggested in S3 and S4. The potential for the spread of diseases from ballast is too serious to ignore in the interim standard. The concentration of organisms allowed in the intake should remain flexible, while encouraging tests to be conducted under a variety of concentrations from low to high. Authority should be given to the Coast Guard to approve a technology that cannot currently be demonstrated to meet this standard, if it is considered to be a best available technology with potential for improvement. Promising technologies could then be approved for use in limited numbers that would allow for their evolution. A child that is never allowed to stumble while trying to walk will never run.

Q3. The ability of existing ballast treatment technologies to meet a standard is not well defined, and that is why the interim standard should be flexible. The interim standard should identify promising technologies and promote their evolution. A rigid standard that seeks to afford maximum protection with existing technologies could stifle future technology innovations. The standard should allow the Coast Guard some flexibility to make common sense determinations based on new knowledge. Uncertainty requires flexibility.

Q4. Trying to structure a cost-benefit or cost-effectiveness analysis that evaluates the four possible standards is a waste of time. The variables and uncertainty are too great. In reality there are only a few ballast treatment methods that are ready for even interim approval. Set an interim standard that allows promising technologies to be approved for use and stay flexible. Remaining paralyzed with inaction is the greatest enemy of progress, and ultimately the most costly option.

Q5.& Q6. Setting the standard by itself will have little financial or environmental impact on anyone, if the standard does not result in the approval of technologies that are required for use. Very few vessel operators will install a treatment technology unless it's mandated or some other incentive is provided. This leaves technology vendors broke, with no source of income to provide a product that is critical to solutions, and a shipping industry with no way to plan or phase in new treatment options. A progressive, clearly defined implementation process should be coupled with the setting of the interim standard that allows all parties the ability to prepare for needed changes.

Promising technologies must be approved for interim use. Broad approval for use must be granted to some technologies, and their use mandated. New builds should be required to install treatment systems by a date certain, and treatment must be required when exchange is not possible. The setting of reasonable time frames to phase in treatment will produce a positive financial impact for treatment vendors, allow vessel operators a reasonable time to prepare for new investments, and insure that regulatory agencies

provide the structure needed to insure progress. Setting time frames for implementation will be controversial, and some states will implement unilateral treatment requirements in the absence of more aggressive federal leadership. The true financial or environmental impact of setting any interim standard cannot be evaluated by itself.